

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EG U80CLC |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513700220 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|-----------------------------------|-----------------------------------|-------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-600a | | |
| 3 Nominal voltage and frequency | 115-127 / 60 | [V / Hz] | |
| 4 Application type | Low Back Pressure | | |
| 4.1 Evaporating temperature range | -35°C to -10°C | (-31°F to 14°F) | |
| 5 Motor type | RSCR | | |
| 6 Starting torque | LST - Low Starting Torque | | |
| 7 Expansion device | Capillary tube | | |
| 8 Compressor cooling | | Operating voltage range | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | Static | - | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static | - | 98 to 140 V |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing pressures/temperature | | | |
| 9.1 Operating (gauge) | 7.7 | [kgf/cm ²] (109 psig) | / °C - °F |
| 9.2 Peak (gauge) | 9.8 | [kgf/cm ²] (139 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation | 1/4 | [hp] |
| 2 Displacement | 11.14 | [cm ³] (0.680 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 21.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | MINERAL / ISO7 | |
| 4 Weight (with oil charge) | 11.27 | [kg] (24.85 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|--|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115-127 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | PTC | |
| 2.1 Starting device | 7M4R7MD3/8EA14C3/8EA1B3/8EA21C3/8EA3B3/8EA4B3/8M4I | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 12(180) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM445KFBYY-53 | |
| 6 Start winding resistance | 5.60 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 3.50 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 13.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 2.10 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAELBP32 Static | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 840 | 212 | 246 | 147 | 1.37 | 2.64 | 5.70 | 1.44 | 1.67 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 45°C (+113°F)) | | | | |
| Evaporating temperature | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 462 | 116 | 135 | 98 | 0.95 | 1.44 | 4.71 | 1.19 | 1.38 |
| -30 (-22) | 637 | 161 | 187 | 116 | 1.12 | 2.00 | 5.45 | 1.37 | 1.60 |
| -25 (-13) | 817 | 206 | 239 | 133 | 1.26 | 2.56 | 6.14 | 1.55 | 1.80 |
| -20 (- 4) | 1020 | 257 | 299 | 149 | 1.40 | 3.20 | 6.84 | 1.72 | 2.00 |
| -15 (+ 5) | 1264 | 319 | 371 | 167 | 1.54 | 3.98 | 7.58 | 1.91 | 2.22 |
| -10 (+14) | 1571 | 396 | 460 | 186 | 1.69 | 4.95 | 8.39 | 2.11 | 2.46 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 55°C (+131°F)) | | | | |
| Evaporating temperature | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 412 | 104 | 121 | 98 | 0.96 | 1.29 | 4.21 | 1.06 | 1.23 |
| -30 (-22) | 590 | 149 | 173 | 121 | 1.14 | 1.85 | 4.86 | 1.22 | 1.42 |
| -25 (-13) | 770 | 194 | 226 | 141 | 1.31 | 2.42 | 5.46 | 1.38 | 1.60 |
| -20 (- 4) | 973 | 245 | 285 | 161 | 1.48 | 3.06 | 6.06 | 1.53 | 1.78 |
| -15 (+ 5) | 1218 | 307 | 357 | 182 | 1.66 | 3.84 | 6.71 | 1.69 | 1.97 |
| -10 (+14) | 1524 | 384 | 447 | 205 | 1.86 | 4.81 | 7.43 | 1.87 | 2.18 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE32 Static | | (Condensing temperature 65°C (+149°F)) | | | | |
| Evaporating temperature | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 358 | 90 | 105 | 93 | 0.90 | 1.12 | 3.85 | 0.97 | 1.13 |
| -30 (-22) | 534 | 135 | 156 | 120 | 1.11 | 1.67 | 4.40 | 1.11 | 1.29 |
| -25 (-13) | 713 | 180 | 209 | 145 | 1.31 | 2.24 | 4.90 | 1.24 | 1.44 |
| -20 (- 4) | 914 | 230 | 268 | 170 | 1.52 | 2.87 | 5.40 | 1.36 | 1.58 |
| -15 (+ 5) | 1156 | 291 | 339 | 195 | 1.73 | 3.64 | 5.94 | 1.50 | 1.74 |
| -10 (+14) | 1458 | 368 | 427 | 222 | 1.98 | 4.60 | 6.56 | 1.65 | 1.92 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate | Universal EG/F/AMEM version 2 | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Straight | | |
| 3.2 DISCHARGE | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Straight | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |